

Product Datasheet

Maleimide Activated R-Phycoerythrin 403-0002

Unit Size: 2 mg

Store at -20C. Avoid freeze-thaw cycles.

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403-0002**Maleimide Activated R-Phycoerythrin****Product Information**

Unit Size	2 mg
Concentration	Please see the protocols for proper use of this product. If no protocol is available, contact technical services for assistance.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Buffer	Supplied as freeze dried formulations

Product Description

Description	<p>Maleimide activated labels are designed to facilitate the conjugation of the desired label to either antibodies, proteins, peptides or ligands that contain a sulfhydryl (-SH) group. The reactive maleimide groups that have been added to the label allows conjugation reactions to be performed very efficiently at physiological pH for superior performance.</p> <p>FeaturesCompatible protein thiolation kit available BenefitsNo specialist knowledge required Covalent bond Highly stable conjugates Maleimide activated labels can be used with a range of biomolecules, including oligonucleotides Flexible Scalable Easy transfer from R&D to manufacturing Stringently QC tested Consistent high quality, excellent batch-to-batch reproducibility Traditional, well-known conjugation chemistry Trusted method</p> <p>Maleimide activated labelsMaleimide - RPE Maleimide - HRP Maleimide - Alkaline Phosphatase Maleimide - APC Maleimide-Streptavidin Maleimide-Ovalbumin Maleimide-BSA Maleimide - KLH</p> <p>If the biomolecule does not have a free thiol group, it will require activation to generate a free thiol group prior to conjugation with the maleimide label:</p> <p>1. Protein Thiolation Kit</p> <p>Designed to facilitate the conjugation of proteins to our maleimide-activated labels. Simply add your protein solution to the lyophilized thiolation reagents to activate your protein. These kits are designed to activate 2mg or 5mg of your protein.</p> <p>Each thiolation kit is also supplied with a thiolation detection kit provided as a positive test for protein thiolation, giving you the option to confirm the chemistry is working.</p> <p>2. Thiol Quantification Kit</p> <p>The thiol quantification assay kit allows you to quantify the amount of thiol/sulfhydryl (-SH) groups in samples of thiolated proteins or antibodies. Quantifying the number of free thiols in a sample can be useful in a number of applications and allows for a more controlled conjugation reaction.</p> <p>The assay is in a convenient 96-well plate format and contains all the necessary reagents required.</p> <p>Molecules that do not contain -SH groups can be chemically modified to introduce the required thiol functionality. In the case of antibodies, disulfide (S-S) bridges may also be cleaved to release free thiols.</p> <p>This product is manufactured by Abcam and distributed by Novus Biologicals.</p>
Specificity/Sensitivity	<p>Maleimide-activated R-Phycoerythrin is designed to facilitate the conjugation of RPhycoerythrin to proteins, peptides and ligands that contain sulfhydryl (-SH) groups. The reactive maleimide group that has been added to the R-Phycoerythrin allows conjugation reactions to be performed very efficiently at physiological pH.</p>

Notes	<p>This product is manufactured by Abcam and distributed by Novus Biologicals.</p> <p>This product is for research use only and is not approved for use in humans or in clinical diagnosis. This product is guaranteed for 1 year from date of receipt and this statement overrides any mentioned guarantee period on the limitations section of this products datasheet. Please contact technical@novusbio.com with questions.</p>
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Product Application Details

Applications	Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Immunohistochemistry 1:10-1:500, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen

Publications

Trilling AK, Harmsen MM, Ruigrok VJ et al. The effect of uniform capture molecule orientation on biosensor sensitivity: dependence on analyte properties. Biosens Bioelectron. 2012-01-01 [PMID: 22878083]



Procedures

Serum protocol for Maleimide Activated R-Phycoerythrin (403-0002)

Maleimide Activated R-Phycoerythrin Protocol (403-0002):

Introduction

Maleimide-activated R-Phycoerythrin is designed to facilitate the conjugation of RPhycoerythrin to proteins, peptides and ligands that contain sulfhydryl (-SH) groups. The reactive maleimide group that has been added to the R-Phycoerythrin allows conjugation reactions to be performed very efficiently at physiological pH.

Storage of Maleimide-activated R-Phycoerythrin

Maleimide-activated R-Phycoerythrin is shipped at ambient temperature as a lyophilized powder containing stabilizers and should be stored at -20°C. Shelf life is >1 year.

Protocol

1. Allow the vial of maleimide-activated R-Phycoerythrin to warm to room temperature.
2. Remove the crimp seal and reconstitute the lyophilized powder by adding a buffered solution of the thiol-containing molecule. Gently agitate the vial to ensure thorough dissolution.

Note: The buffer in which the thiolated molecule is dissolved should be in the pH range 6.5-7.5. Phosphate buffered saline pH 7.2 is commonly employed. EDTA (1-10 mM) may help to prevent metal catalysed oxidation of thiols.

3. Incubate for 3-4 hours (or overnight) at room temperature and then store at 4°C.





Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-
techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Support products are guaranteed for 6 months from date of receipt.

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